size: their diameter being contained about eight times in the length of the side of the head, and four times only across the interocular space. The anterior margin of the dorsal is somewhat nearer the apex of the snout than the adipose, which is smaller and inserted more anteriorly than in *P. puma*. The caudal fin enters five times and a half in the total length. The base of the anal is equal to the length of the caudal.

LXXV. A most characteristic species of cat fish has been collected in the neighborhood of Anderson, S. C.; specimens of which having been secured by Mrs. Daniel, were sent to Prof. S. F. Baird nearly eight years ago. The head which is longer than broad, is very much depressed, and contained about four times in the total length. The mouth is exceedingly broad and large; the jaws being equal. The eyes are large; their diameter entering six times and a half in the length of the side of the head, and three and a half times across the interocular space. The anterior margin of the dorsal fin is nearer the apex of the snout than the adipose fin. The caudal is posteriorly emarginated, and constitutes the sixth of the total length. The base of the anal is somewhat longer than the caudal.

In calling this species *Pimelodus platycephalus*, allusion is made to its most conspicuous character.

LXXVI. Specimens of a cat fish, collected in the Black Warrior and Bigsby rivers, Ala., were sent to the Smithsonian Institution by Prof. A. Winchell. The head is contained five times and a half in the entire length. The caudal fin is somewhat longer than the head. The eyes are very large; their diameter being contained but three times in the length of the side of the head: once in advance and once behind the orbit. The maxillar barbels extend beyond the middle of the length of the pectorals. The base of the anal fin enters four times in the total length of the fish. The rays are:—Br. VIII: IX; D I, 6; A 28; C 10, 1, 7, 8, 1, 10; V 8; P I, 9.—The dorsal region is of a pale red; the sides of the tail are silvery; the abdomen is whitish. Brown small spots and dots are occasionally scattered over the body. The maxillar barbels are blackish.

The name of *Pimelodus megalops*, refers to the development of the eyes, although other species may possess a similar feature to a lesser degree.

LXXVII. Finally we owe to Jas. Fairie, specimens of a cat fish collected by himself at Prairie mer Rouge, La. The species being new, we call it *Pimelodus graciosus*. It has the general appearance of the preceding species, but the eyes are much smaller; their diameter entering four times in the length of the side of the head. The head itself forms the fifth of the total length. The anterior margin of the dorsal fin is nearer the apex of the snout than the origin of the adipose. The tip of the ventral fins extend beyond the origin of the anal. The rays are:—Br. VI: VI; D I, 6; A 28; C 5, 1, 7, 8, 1, 6; V 8; P I, 9.—The color is reddish brown above; the vertical fins are margined with black. The abdomen is yellowish; the horizontal fins being unicolor. The maxillar barbels are greyish black; the submaxillar ones are yellow.

The resignation of J. Aitken Meigs, M. D., as Librarian of the Academy, on account of business engagements, was accepted.

June 7th.

Mr. LEA, President, in the Chair.

Fifty-four members present.

A paper was presented for publication in the Journal of the Academy, entitled Synopsis of North American Sphingidæ, by Brackenridge Clemens, M. D.

And the following for publication in the Proceedings: Description of a new genus of Salarianæ, by Theo. Gill.

And were referred to Committees.

Dr. Leidy directed the attention of the Academy to a number of interesting fossils left by Prof. Emmons for the inspection of the members.

One of the specimens is the ramus of a lower jaw of a small insectivorous mammal. The Dromatherium sylvestre Emmons, from the coal of Chatham Co., N. C. It is of very great interest, as being the oldest known relic of a mammal. A second specimen, less well preserved, is presented this evening to the Academy by Prof. Emmons.

Other fossils consist of teeth, vertebræ, and fragments of other bones of Clepsysaurus, Rutiodon and Palæosaurus, also from Chatham Co., N. C.

There is also a good suite of the curious subsilurian fossil Palæotrochus, of which some of the specimens are detached, while others are imbedded in the quartzose rock.

Dr. L. further noticed a very large tooth, much mutilated and black in color, which was discovered by Prof. Emmons, in association with ear bones of cetacea, in the miocene deposits of North Carolina. The tooth probably also belongs to a cetacean, for which the name of Ontocetus Emmonsi is proposed.

The tooth is curved conical, and is compressed and fluted laterally. In its perfect condition it has been over ten inches in length, by about four inches in its greater diameter, and two and a half inches wide. It is composed of dentine, with an exterior comparatively thin layer of cement, and an interior comparatively large amount of osteo-dentine. The specimen appears to have lain long exposed to the attacks of living mollusks at the bottom of the miocene ocean, as it exhibits a number of excavations made by pholades or other allied genera.

Professor Emmons, at the meeting of May 24th, remarked that the debituminization of coal was effected through the agency of heat, but he does not think that the debituminization of anthracite is due to heat emanating from an incandescent body, whether that body be injected trap or other pyrocrystalline rocks. In his opinion the heat which debituminized the coal of the anthracite region was disengaged or generated by the collision of the rocks enclosing it at the time of their upheaval. In support of this view he referred to the correlation of forces—the equivalent of heat, etc.—and stated he found by experiment, a year ago, that the volatile matter of the bituminous slates of North Carolina began to come off at 350°, and that it was all driven off paraphine, and all about 608°. Hence he inferred that coals are debituminized at low temperatures, and that intense ignition is not required.

Professor Rogers objected to these views, and suggested that the non-conducting property of the rocks was an obstacle to the theory.

Mr. Lea, in accordance with a request made at a previous meeting, read the following notice of the late Alexander von Humboldt:

When one of the great luminaries of the scientific world has passed away, it is usual to take some notice of the loss sustained by those who were accustomed to benefit by the labors and instruction of the departed philosopher. It is rarely, very rarely, that science has been deprived of a mind so rich in various branches of human knowledge, as that of Alexander Von Humboldt, a native of Prussia, but belonging to the whole world of civilization. In what town or hamlet, where the European languages are understood, has not his name been familiar? Where has he not imparted new ideas to the inquiring mind?

Born in 1769, a year remarkable for the birth of many of the most distin-

guished men of the 18th century, viz., Cuvier, Scott, Bonaparte, Wellington, Schiller, Canning and Chateaubriand, few of them have left a more indelible mark than our associate.

His early travels brought him to this city more than half a century since, and before the foundation of our own Academy, of which he was made a "correspondent" in 1843.

Born in the highest rank of society with all the advantages of political preferment, he chose to labor in the walks of science. The friend of sovereigns, he was also the friend of the poorest student in the pursuit of knowledge. He was the same philosopher in the palace as in the humble hut. No man had greater advantages—no one had made better use of them. Unceasing in his scientific explorations, he exposed himself to the greatest hardships in his voyages and travels, at times braving the deadly malaria and the burning heats of the tropics, then scaling the summits of mountains before considered inaccessible to man. From these scenes he returned only to work up his abundant materials, which were more extensive and better selected than any before made; and this has been done in the most erudite manner and for the most useful purposes. His books and essays, which he leaves as a rich inheritance to the learned of all countries, will prove to be an immortal monument of his devotion to and his pre-eminence in science.

All countries claim him because he labored for all, and he fraternised with all their men of science. Of as easy access to the student of nature as to the most learned, he was amiable, courteous and generous. Well aware of what science was doing to promote the welfare and happiness of man, he, during the period of his long life, faithfully worked out his part without ostentation or pride. He loved his studies for their own sake, and in his brilliant intelligence most anxiously diffused that knowledge which he had acquired by his own great labors.

He was educated chiefly at Göttingen, under Blumenbach and other distinguished professors. Subsequently he studied under the great Werner, who gave such an impulse to geology towards the end of the last century. The eminent Von Buch—only recently dead, an associate of our Academy since 1840—became his intimate friend. In 1799 he sailed from Spain with his *fides Achates*, Bonpland, and explored the rivers, mountains and plains of South America. Returning to Europe in 1804, he proceeded to Paris, where he remained until 1807, and published the "Voyage to the Equinoctial Regions of the New Continent." Here he formed those intimate associations with his co-laborers, Cuvier, Arago, Gay-Lussac, Latreille, &c., which he valued so highly, and here he commenced his "Cosmos." Eventually he took up his permanent residence in Berlin in 1847, avoiding all political preferment, but remaining in close intimacy with his sovereign, who was a learned man, and his personal friend, and valuing his society so much, he desired to have it daily when it suited the philosopher's convenience.

When I had the pleasure to see our illustrious associate in Berlin, in the summer of 1853, he was in his 84th year, but still rapid in his thoughts and active in his movements. He was then deeply engaged in the last volume of his "Cosmos," parts of which he showed to me, and expressed his great interest in the advance that science was making in the United States. This he spoke of with great warmth, and I had reason to believe that he felt a strong partiality to Americans. In this he united with the general German sentiment.

Humboldt was beloved and venerated by the population of Berlin and Potsdam, and he was followed to the grave by all that was great and good in the Capital of Prussia.

In conclusion I offer the following reolutions:—

Resolved, That in the decease of our "Correspondent" Baron Alexander Von Humboldt, we lose a scientific brother of no ordinary fame, and

one who, for nearly three-fourths of a century, had led in many branches of philosophy and useful learning.

Resolved, That we recognise no boundaries, no political or civil divisions in philosophy, but consider our eminent, distinguished and learned associate as belonging to us, as well as to the whole scientific world; and we are deeply sensible of the irreparable loss we have all sustained in being deprived of his further labors.

Resolved, That his illustrious example ought to spur us on to the scientific development of his favorite working field—the Western Continent—and although we no longer have his presence to cheer us on, we will not slacken in our endeavors to elucidate the Natural History, the Geology and Physical condition of our continent.

The resolutions were then adopted.

The following resolutions were adopted:

That the thanks of the Academy be tendered to Mrs. Sarah R. G. Beck for her valuable donation to the Library, presented this evening.

That the thanks of the Academy be tendered to the executors of the late Dr. Chas. F. Beck for the donation of a microscope presented this evening.

June 14*th.*

Mr. Lea, President, in the Chair.

Forty members present.

A paper was presented for publication in the Proceedings, entitled Herpetological Notices, by Charles Girard, M. D., and was referred to a Committee.

Dr. Uhler called attention to the anæsthetic effect of bisulphide of carbon, which he had accidentally experienced while engaged in its manufacture. The effect was very different from that of sulphydric acid, which accompanies the first distillation of the product, and no unpleasant results followed.

June 21*st.*

Mr. Lea, President, in the Chair.

Forty-five members present.

The following papers were presented for publication in the Proceedings:

Description of a new species of Callinidea, by Theo. Gill.

Description of new generic types of Cottoids from the collection of the North Pacific Exploring Expedition under Com. John Rodgers, by Theo. Gill.

Description of twelve new species of Uniones from Georgia, by Isaac Lea.

And were referred to Committees.

A letter from Dr. C. A. Helmuth, dated Chicago, June 6th, 1859, was read, giving an account of a specimen of Hydaticus z o n a t u s, in which the head was only half the usual size, and enveloped in the skin